

IV. B. 22. Water Quality

- a) **Background.** Decent water quality in the United States for human consumption, agricultural usage, recreation, etc. is very pertinent, multi-state in nature, and heavily regulated by Federal government primarily under the authorities of the Clean Water Act, the Safe Drinking Water Act, and the Water Quality Act. Water quality standards established by these acts tend to consist of three primary elements: (1) determination of the designated beneficial use or uses of a waterbody or segment of a waterbody; (2) determination of the water quality criteria necessary to protect the use or uses of that particular waterbody; and (3) determination of an antidegradation policy. Many aspects of existing bodies of water are considered including: naturally occurring pollutants, low-flow levels, hydrologic modifications, etc. Water quality standards are established which target protecting human health and aquatic life as well as preserving biological integrity. Ultimately, permits (such as the Clean Water Act's Section 404 permit for dredging and filling in waters of the United States) are issued by the oversight agency, the U.S. Environmental Protection Agency at the Federal level and the Colorado Department of Health and Environment, Water Quality Control Division, at the State level, to enforce an antidegradation policy.



Rural Development funding objectives should be consistent with the intentions of the Clean Water Act, the Safe Drinking Water Act, and the Water Quality Act as well as State government focuses.

- b) **Governing Regulations.**
- (1) Federal.
 - (a) Clean Water Act of 1972, as amended.
 - (b) Safe Drinking Water Act of 1974, as amended.
 - (c) Water Quality Act of 1987.



- (d) U.S. Executive Order 11514, Protection and Enhancement of Environmental Quality.
 - (e) National Environmental Policy Act, 42 U.S.C. 4321.
 - (f) Title 7, Part 1b and 1c, Code of Federal Regulations, U.S. Department of Agriculture's National Environmental Policy Act.
- (2) State.
 - (a) Colorado Water Quality Control Act, Colorado Revised Statutes, 25-8-101 et seq.
 - (b) Colorado Revised Statutes, Title 25, Article 1, as amended.
- c) Policy. Rural Development shall not authorize, fund, or carry out any proposal or project which would adversely affect the unique values of the water resources located in the State of Colorado. Whenever a proposed action is determined to have the potential for impacting such a water resource, the Colorado Department of Public Health and Environment, Water Quality Control Division, should be consulted as early in the environmental impact analysis process as possible to evaluate the possible consequences of and protection requirements necessary concerning the action.

Rural Development environmental reviewers should insure that all required Federal (i.e. Section 404) and State permits are secured prior to finalizing environmental determinations.

Lead Hazard. Lead content in potable drinking water supplies has become known as a significant toxic metal hazard to human health contributing, per the U.S. Environmental Protection Agency (EPA), on average between 10 and 20 percent of total lead exposure in young children. The degree of harm depends upon the level of exposure.

The only way to be sure of the amount of lead in household water is to have water tested by a competent laboratory. The Colorado Department of Public Health and Environment, Water Quality Control Division, should be contacted regarding acceptable laboratories. Additionally, interested Rural Development applicants and borrowers should be given a copy of the EPA pamphlet, "*Lead and Your Drinking Water*", available from the Rural Development State Environmental Coordinator.

Also reference an additional discussion of lead hazard in drinking water contained in Section 23, "Lead in Paint and Drinking Water", of this Guide.

Sole Source Aquifer Recharge Areas. Aquifer recharge areas are land or water areas underlain by aquifers, such as underground rock formations which contain groundwater. Aquifers are replenished with surface water percolating through soil and bedrock and ultimately into the aquifer. "Sole-source" aquifers are the sole source of drinking water for certain communities and are designated as a special category of aquifers by EPA. Areas



overlying sole source aquifers must be properly managed to minimize or avoid pollution of the aquifer. Aquifers can be polluted through such mechanisms as improper or illegal application of pesticides; improperly constructed or managed landfills; illegal disposal of hazardous wastes; or pollution of streams or lakes.

Presently, there are no EPA-designated sole source aquifer recharge areas located within the State of Colorado.

Federal Objective. The U.S. Environmental Protection Agency (EPA) has been tasked with the dual responsibility of reducing the pollution of waterways and maintaining safe drinking water. The major objective is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, including developing a comprehensive strategy to protect groundwater supplies from sources of contamination.

State Objective. The Federal Acts require the State of Colorado to set water quality standards based upon EPA's national standards. The State has declared that its policy is to prevent injury to beneficial uses made of State waters; to maximize the beneficial uses of its waters; to conserve its water; and to exercise its police powers to achieve this end. Recent State activities have focused on the development of a groundwater policy with the objective of reducing contaminants to a resource which has not received the same attention as surface water resources in the past.

d) Classification.

- (1) Permitted activity.
- (2) Not permitted activity.

e) Agency Jurisdiction:

- (1) Federal. The public drinking water systems that EPA, and delegated states and tribes, regulate provide drinking water to 90 percent of Americans. These public drinking water systems, which may be publicly- or privately-owned, serve at least 25 people or 15 service connections for at least 60 days per year. Through the Public Water System Supervision (PWSS) program, EPA implements and enforces drinking water standards to protect public health. EPA does not regulate drinking water wells that supply water to fewer than 25 people.

Approximately 23 million people in the U.S. obtain water from their own private drinking water supplies. Most of these supplies are drawn from ground water through wells, but some households also use water from streams or cisterns. EPA does not oversee private wells, although some state and local governments do set rules to protect users of these wells. EPA encourages these households to take special precautions to ensure the protection and maintenance of their drinking water supplies.



Following is the contact for matters within the State of Colorado.

U.S. Environmental Protection Agency
Region VIII Office
Water Division – Municipal Systems
999 18th. Street
Suite 300
8P-W-MS
Denver, Colorado 80202-2466

Bob Benson, Toxicologist (303) 312-6627

- (2) State. The Colorado Department of Public Health and Environment, Water Quality Control Division, oversees the State's water quality program. Following is the contact for matters within the State of Colorado.

Colorado Department of Public Health and Environment
Water Quality Control Division
Drinking Water Section
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Colorado Department of Public Health and Environment
Water Quality Control Division
Wastewater Permits and Enforcement Section
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

(303) 692-3500

<http://www.cdphe.state.co.us/wq/wqhom.asp>

- f) Location of Resource. Water resources which could be impacted by Rural Development actions include all surface and subsurface rivers, streams, creeks, lakes, ponds, aquifers, and wetlands. State permits are required for actions which affect certain point sources. Non-point sources, such as individual residential wastewater disposal systems, may also impact water resources significantly, especially where high density may develop. Non-point source best management practices should be implemented where appropriate. The Natural Resource Conservation Service and local Soil Conservation Districts are entities which traditionally provide technical assistance in this area.
- h) Other References.
- 1) Technology Planning and Management Corporation
"Drinking Water 101"



(Web-site with a Microsoft *Powerpoint* presentation on the basics of drinking water)

<http://www.drinkingh2o.com/html/public.html>

- 2) U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water

(Home page web-site)

<http://www.epa.gov/OGWDW/>